Section I (Amendments to the Claims)

Please amend claims 1 and 2 as set out in the following listing of the claims of the application. Please cancel claims 3 and 6, without prejudice.

1. (Currently amended) A method of diagnosing Alzheimer's disease or an early stage of or a predisposition for this disease by means of a patient sample and a ~~one or more~~ mitogenically stimulated surface ~~markers~~ marker, the method compromising the steps of:

(a) obtaining a patient sample comprising ~~peripherally accessible cells~~ lymphocytes;

(b) quantification of the ~~cells~~ lymphocytes within the cell population comprising the ~~one or more surface markers~~ CD69 for mitogenic stimulation;

(c) mitogenic stimulation of the cell population by PHA or PWM;

(d) quantification of the ~~cells~~ lymphocytes within the mitogenically stimulated cell population comprising the ~~one or more surface markers~~ CD69 after step (c), the ~~cells~~ lymphocytes bearing ~~the surface markers~~ CD69 being separated ~~by~~ from the ~~cells~~ lymphocytes bearing no ~~surface markers~~ CD69 by means of antibodies directed against ~~the surface markers~~ CD69;

(e) calculation of a stimulation index as the quotient of the number of ~~calls~~ lymphocytes ~~comprising the one or more surface markers~~ bearing CD69 in step (b) and step (d) and;

(f) detecting that the sample is from a patient suffering from Alzheimer's disease or an early stage of or a predisposition for this disease if the stimulation index calculated in step (e) is at least 10, with a maximum of 100.

2. (Original) The method according to claim 1, wherein the sample is a blood sample ~~and the cells are lymphocytes~~.

3. (Cancelled)

4. (Original) The method according to claim 3, wherein the $CD69^+$ cells are further specified with respect to $CD4^+$ and/or $CD8^+$ subpopulations.

5. (Previously presented) The method according to claim 2, wherein the blood is stabilized by adding one or more anticoagulative compounds to the patient sample before step (b).

6. (Cancelled)

7. (Previously presented) The method according to claim 1, wherein the antibodies in step (d) are bound to magnetic particles and the separation is carried out via immunomagnetic separation.

8. (Previously presented) The method according to claim 1, wherein the stimulation index is determined by determining the protein content and/or nucleic acid content of the cells bearing surface markers in step (b) and step (d).

9. (Withdrawn) A kit for the diagnosis of Alzheimer's disease or an early stage of or a predisposition for this disease, the kit containing the following constituents:

(a) a compound for mitogenic stimulation; and

(b) at least one antibody directed against a surface marker expressed after mitogenic stimulation.

10. (Withdrawn) The kit according to claim 9, also containing:

(a) an anticogulative compound; and/or

(b) a buffer for cell lysis.

11. (Withdrawn) The kit according to claim 9, wherein the antibody is an antibody bound to a magnetic particle.

12. (Withdrawn) The kit according to claim 9, wherein the antibody is an anti-CD69 antibody.

13. (Previously presented) The kit according to claim 9, which also contains an anti-CD4 and/or CD8 antibody.